IN THE CLAIMS:

Please amend claims 1-15 as follows. Please cancel claim 16 without prejudice or disclaimer. Please add new claims 18 and 19 as follows.

1. (Currently Amended) An error adjustment system for equalizing transmission characteristics of N signal processing circuitries according to N signal branches (N>1), the system comprising:

a generating ~~means for generating~~ unit configured to generate an original complex time domain IQ signal for N signal branches;

N error correction units ~~means~~ according to the N signal branches, each ~~for performing~~ configured to perform error correction on the original complex time domain IQ signal of a respective signal branch by means of a correction function;

N signal processing circuitries according to the N signal branches, each ~~for processing~~ configured to process the corrected complex time domain IQ signal of the respective signal branch, thereby obtaining a processed real signal of the respective signal branch; and

a processing device comprising[[:]]

a receiving ~~means for receiving~~ unit configured to receive an original complex time domain IQ signal of a signal branch of the N signal branches generated by the generating ~~means~~ unit and a processed real signal of the signal branch;

a first calculating ~~means for calculating~~ unit configured to calculate a processed complex time domain IQ signal of the signal branch from the processed real signal and the original complex time domain IQ signal of the signal branch;

a second calculating ~~means for calculating~~ unit configured to calculate a difference between the processed complex time domain IQ signal and the original complex time domain IQ signal;

a third calculating ~~means for calculating~~ unit configured to calculate control values of a correction function of the signal branch on the basis of the difference calculated by the second calculating unit ~~means~~; and

a supplying unit configured to supply ~~means for supplying~~ the control values calculated by the third calculating ~~means~~ unit to the correction function of the signal branch,

wherein the receiving ~~means~~ unit, the first to third calculating ~~means~~ units and the supplying ~~means~~ unit are configured to repeat their operations for all N signal branches.

2. (Currently Amended) The system according to claim 1, further comprising:

N detecting ~~means~~ units according to the N signal branches, ~~for detecting~~ configured to detect an envelope of the processed real signal,

wherein the receiving ~~means~~ unit of the processing device ~~are~~ is configured to receive the original complex time domain IQ signal of the signal branch generated by the

generating ~~means~~ unit and the envelope of the processed real signal of the signal branch, and

wherein the first calculating ~~means~~ unit ~~are~~ is configured to calculate a processed complex time domain IQ signal of the signal branch from the envelope of the processed real signal and the original complex time domain IQ signal of the signal branch.

3. (Currently Amended) The system according to claim 2, wherein the first calculating ~~means~~ unit ~~are~~ is configured to calculate an envelope of the original complex time domain IQ signal of the signal branch and to compare ~~comparing~~ the envelope of the processed real signal with the envelope of the original time domain IQ signal at two consecutive time instances, thereby obtaining a processed complex time domain IQ signal.

4. (Currently Amended) The system according to claim 3, wherein the processing device further comprises a synchronizing unit configured to synchronize ~~means for synchronizing~~ the envelope of the processed real signal and the original complex time domain IQ signal of the signal branch, and the first calculating ~~means~~ unit ~~are~~ is configured to compare the envelope of the processed real signal synchronized with the original complex time domain IQ signal with the envelope of the original time domain IQ signal at two consecutive time instances, thereby obtaining a processed complex time domain IQ signal.

5. (Currently Amended) The system according to claim 1, wherein the third calculating ~~means~~ unit ~~are~~ is configured to approximate a gradient of the difference calculated by the second calculating ~~means~~ unit on the basis of the difference and an approximation of a transmission characteristic of the signal processing circuitry of the signal branch, and to update control values of the correction function based on the approximated gradient, and wherein the supplying ~~means~~ unit ~~are~~ is configured to supply the updated control values to the correction function of the signal branch.

6. (Currently Amended) A processing device for an error adjustment system for equalizing transmission characteristics of N signal processing circuitries according to N signal branches (N>1), the device comprising:

a receiving ~~means for receiving~~ unit configured to receive an original complex time domain IQ signal of a signal branch of N signal branches and ~~receiving~~ to receive a processed real signal of the signal branch;

a first calculating ~~means for calculating~~ unit configured to calculate a processed complex time domain IQ signal of the signal branch from the processed real signal and the original complex time domain IQ signal of the signal branch;

a second calculating ~~means for calculating~~ unit configured to calculate a difference between the processed complex time domain IQ signal and the original complex time domain IQ signal;

a third calculating ~~means for calculating~~ unit configured to calculate control values of a correction function of the signal branch on the basis of the difference calculated by the second calculating unit ~~means~~; and

a supplying ~~means for supplying~~ unit configured to supply the control values calculated by the third calculating unit ~~means~~ to the correction function of the signal branch,

wherein the receiving unit ~~means~~, the first to third calculating unit ~~means~~ and the supplying unit ~~means~~ are configured to repeat their operations for all N signal branches.

7. (Currently Amended) The processing device according to claim 6, wherein the receiving unit ~~means~~ and the supplying unit ~~means~~ are formed by a data bus, and wherein the first to third calculating units ~~means~~ are formed by a digital signal processor.

8. (Currently Amended) The processing device according to claim 7, further comprising a storage unit ~~means for storing~~ configured to store algorithms to be carried out by the digital signal processor.

9. (Currently Amended) An error adjustment method of equalizing transmission characteristics of N signal processing circuitries according to N signal branches, the method comprising:

~~a generating step of~~ generating an original complex time domain IQ signal for N signal branches; and

in each of the N signal branches,[[:]]

~~a performing step of~~ performing error correction on the original complex time domain IQ signal by means of a correction function;

~~a processing step of~~ processing the corrected complex time domain IQ signal in a signal processing circuitry, thereby obtaining a processed real signal; and

in a processing device,[[:]]

~~a receiving step of~~ receiving an original complex time domain IQ signal of a signal branch of the N signal branches generated ~~in the generating step~~ and a processed real signal of the signal branch;

~~a~~ first ~~calculating step of~~ calculating a processed complex time domain IQ signal of the signal branch from the processed real signal and the original complex time domain IQ signal of the signal branch;

~~a~~ second ~~calculating step of~~ calculating a difference between the processed complex time domain IQ signal and the original complex time domain IQ signal;

~~a~~ third ~~calculating step of~~ calculating control values of a correction function of the signal branch on the basis of the difference calculated in the second calculating ~~step~~;

~~a supplying step of~~ supplying the control values calculated in the third calculating ~~step~~ to the correction function of the signal branch; and

~~a repeating step of~~ repeating the steps performed in the processing device for all N signal branches.

10. (Currently Amended) The method according to claim 9, further comprising:

in each of the N signal branches,[[:]]

~~a detecting step of~~ detecting an envelope of the processed real signal,

wherein the receiving ~~step~~ comprises receiving the original complex time domain IQ signal of the signal branch generated ~~in the generating step~~ and the envelope of the processed real signal of the signal branch, and

wherein the first calculating ~~step~~ comprises calculating a processed complex time domain IQ signal of the signal branch from the envelope of the processed real signal and the original complex time domain IQ signal of the signal branch.

11. (Currently Amended) The method according to claim 10, wherein the first calculating ~~step~~ comprises:

calculating an envelope of the original complex time domain IQ signal of the signal branch; and

comparing the envelope of the processed real signal with the envelope of the original time domain IQ signal at two consecutive time instances, thereby obtaining a processed complex time domain IQ signal.

12. (Currently Amended) The method according to claim 11, further comprising:

in the processing device,[[:]]

~~a synchronizing step of~~ synchronizing the envelope of the processed real signal and the original complex time domain IQ signal of the signal branch,

wherein the envelope of the processed real signal synchronized with the original complex time domain IQ signal is compared with the envelope of the original time domain IQ signal at two consecutive time instances, thereby obtaining a processed complex time domain IQ signal.

13. (Currently Amended) The method according to claim 9, wherein the third calculating ~~step~~ comprises:

approximating a gradient of the difference calculated in the second calculating ~~step~~ on the basis of the difference and an approximation of a transmission characteristic of the signal processing circuitry of the signal branch; and

updating control values of the correction function based on the approximated gradient; and

the supplying ~~step~~ comprises supplying the updated control values to the correction function of the signal branch.

14. (Currently Amended) A method of equalizing transmission characteristics of N signal processing circuitries according to N signal branches, the method comprising:

~~a~~ first ~~calculating step of~~ calculating a processed complex time domain IQ signal of a signal branch of N signal branches from a processed real signal and an original complex time domain IQ signal of the signal branch;

~~a~~ second ~~calculating step of~~ calculating a difference between the processed complex time domain IQ signal and the original complex time domain IQ signal;

~~a~~ third ~~calculating step of~~ calculating control values of a correction function of the signal branch on the basis of the difference calculated in the second calculating ~~step~~; and

~~a repeating step for~~ repeating the first to third calculating ~~steps~~ for all N signal branches.

15. (Currently Amended) A computer program product ~~for a computer~~, embodied on a computer-readable medium, the computer program product comprising software code portions for ~~performing the following steps when the program is run on the~~ controlling a computer to perform the following:

~~a~~ first ~~calculating step of~~ calculating a processed complex time domain IQ signal of a signal branch of N signal branches from a processed real signal and an original complex time domain IQ signal of the signal branch;

~~a~~ second ~~calculating step of~~ calculating a difference between the processed complex time domain IQ signal and the original complex time domain IQ signal;

~~a~~ third ~~calculating step of~~ calculating control values of a correction function of the signal branch on the basis of the difference calculated in the second calculating ~~step~~; and

~~a repeating step for~~ repeating the first to third calculating ~~steps~~ for all N signal branches.

16. (Canceled).

17. (Original) The computer program product according to claim 15, wherein the computer program product is directly loadable into an internal memory of the computer.

18. (New) An error adjustment system for equalizing transmission characteristics of N signal processing circuitries according to N signal branches (N>1), the system comprising:

generating means for generating an original complex time domain IQ signal for N signal branches;

N error correction means according to the N signal branches, each for performing error correction on the original complex time domain IQ signal of a respective signal branch by means of a correction function;

N signal processing means according to the N signal branches, each for processing the corrected complex time domain IQ signal of the respective signal branch, thereby obtaining a processed real signal of the respective signal branch; and

a processing device comprising

receiving means for receiving an original complex IQ time domain signal of a signal branch of the N signal branches generated by the generating means and a processed real signal of the signal branch;

first calculating means for calculating a processed complex time domain IQ signal of the signal branch from the processed real signal and the original complex time domain IQ signal of the signal branch;

second calculating means for calculating a difference between the processed complex time domain IQ signal and the original complex time domain IQ signal;

third calculating means for calculating control values of a correction function of the signal branch on the basis of the difference calculated by the second calculating means; and

supplying means for supplying the control values calculated by the third calculating means to the correction function of the signal branch,

wherein the receiving means, the first to third calculating means and the supplying means are configured to repeat their operations for all N signal branches.

19. (New) A processing device for an error adjustment system for equalizing transmission characteristics of N signal processing circuitries according to N signal branches (N>1), the device comprising:

receiving means for receiving an original complex time domain IQ signal of a signal branch of N signal branches and receiving a processed real signal of the signal branch;

first calculating means for calculating a processed complex time domain IQ signal of the signal branch from the processed real signal and the original complex time domain IQ signal of the signal branch;

second calculating means for calculating a difference between the processed complex time domain IQ signal and the original complex time domain IQ signal;

third calculating means for calculating control values of a correction function of the signal branch on the basis of the difference calculated by the second calculating means; and

supplying means for supplying the control values calculated by the third calculating means to the correction function of the signal branch,

wherein the receiving means, the first to third calculating means and the supplying means are configured to repeat their operations for all N signal branches.